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Thirty-three supersweet (sh2) sweet corn cultivars were evaluated at the Pinney-Purdue Ag Center, Wanatah, IN. Production practices and experimental design are described at the end of this report.

Results are reported in Table 1. Emergence averaged 91.5% and was greater than 90% for all but seven varieties. ACX 733 had the lowest emergence at 70%. Marketable yield ranged from 1323 dozen to 2242 dozen ears per acre and 91 to 162 cwt. per acre, with the exception of one late cultivar with few marketable ears (GSS 3381) that produced 581 dozen and 43 cwt. per acre. Cultivars producing the greatest yield both in number of ears and weight were Attribute GSS 0966, Gourmet Sweet 275 A, Extra Tender 275 A, and HMX 8344 BS. Attribute BSS 0977 and Gourmet Sweet 277 A produced a large number of ears, and AAX 774, PS 8201 and Gourmet Sweet 276 A produced heavy yields but not large numbers of ears. Ear size (weight per ear, ear length, and ear diameter) also varied among cultivars. Cultivars among the longest and heaviest ears included: bicolor BSS 1690, yellows ACX 945, Crisp 'n' Sweet 710A and AAX 638. Cultivars with the lightest and shortest ears included bicolors Fantasy, ACX 950, Attribute BSS 0977, and the yellow Gourmet Sweet 171 A. Later-maturing cultivars tended to have longer ears. A number of cultivars produced ears that were wide but not particularly long relative to others in this trial. These included bicolors Extra Tender 270 A, Gourmet Sweet 276 A, Extra Tender 275 A, AAX 774, Gourmet Sweet 275 A, AAX 425, Tango, HMX 8344 BS, the white Millennium and the yellow Cronus. Husk cover was good to excellent for most cultivars. Exceptions were bicolors Fantasy and Tethys with poor husk cover and Extra Tender 270 A, BSS 1690, ACX 950, PS 9364169, Gourmet Sweet 171 A, and PS 8004 with fair husk cover. Tip fill varied from fair to excellent. Cultivars with fair tip fill were later maturing and included HMX 8343 BS, PS 8201, AAX 638, HMX 8392 S, 7640, and GSS 3381 VP. The most promising bicolor cultivars included (from earliest to latest maturity): **Extra Tender 275 A, Gourmet Sweet 275 A Gourmet Sweet 276 A** and **Attribute BSS 0977**. The most promising yellow cultivars were **Cronus** and **Attribute GSS 0966.**

The trials were conducted on a Tracy Sandy Loam, fertilized before planting with 100 lb./A N from urea and 80 lb./A K_2O from 0-0-60. The trial was arranged as a randomized complete block design with three replications. One cultivar, Fantasy, was included twice in each block. Cultivars were assigned to individual plots 1 row (36 in.) wide by 25 ft. long. One hundred seed per plot were seeded June 11, 2001. One week after planting on June 19 emergence was determined. Plants were then thinned to achieve a population of 35 plants per 25 ft of row (20,328 plants/A). Weeds were controlled with a preplant application of Aatrex (1.25 lb./A) and Dual II (2 pt./A), followed by cultivation and hand weeding. Irrigation was applied through overhead sprinklers on June 29, July 16, 30-31, and Aug. 6. To control rust Dithane DF was applied at 1.5 lb./A on June 12, 18 and July 26. To control European corn borer and corn earworm Pounce was applied on Aug 3, 10, and 18 at 4 oz./A.

Each plot was harvested when corn reached marketable stage. The number and weight of marketable ears in each plot were determined. Three ears from each plot were used to evaluate degree of husk cover, degree of tip fill, and average ear diameter and length after husking. All ratings were on a scale of 1 (very poor) to 9 (excellent). Specifics of scale for husk cover and tip fill are:

Rating	Husk Cover	Tip Fill
9	greater than 1" beyond cob	Completely filled to tip of cob
8	1" and tight	Filled nearly to tip
5	1/2 " and tight	1/2 " of cob unfilled
2	ear showing	greater than 1.5" of cob unfilled

Data were analyzed using ANOVA followed by mean separation using Fisher's protected least significant difference. The relationships between ear size and average days to harvest were analyzed using regression analysis.

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Table 1. Yield, ear size and quality of supersweet (sh2) sweet corn in Northern Indiana, 2001.

Cultivar	Co.	Color	Days to Harvest	GDD to Harvest **	Yield of Marketable Ears		Average Ear Weight	Ear Length	Ear Diameter	Husk Cover	Tip Fill	Emer-gence
			(DAP)*		(doz/A)	(cwt/A)	(lb)	(in)	(in)	(1-9)#	(1-9)#	(%)
Extra Tender 270 A	JS	BI	64	1378	1517	128	0.70	7.6	1.83	5.7	8.3	91
Fantasy	JS	BI	64	1378	1428	91	0.53	7.0	1.67	4.7	6.4	91
Saturn	SW	BI	69	1450	1694	123	0.61	7.6	1.71	9.0	9.0	95
Gourmet Sweet 277 A	ST	BI	70	1463	1759	129	0.61	6.9	1.77	6.9	9.0	93
ACX 733	AC	BI	70	1463	1678	123	0.61	7.1	1.68	8.3	8.0	70
BSS 1690	SY	BI	70	1463	1452	135	0.77	8.3	1.77	5.0	8.6	98
Extra Tender 275 A	JS	BI	70	1463	1871	152	0.68	7.6	1.76	8.8	8.8	95
Gourmet Sweet 273 A	ST	BI	70	1463	1629	113	0.58	7.1	1.72	7.2	9.0	91
Gourmet Sweet 276 A	ST	BI	70	1463	1646	148	0.75	7.7	1.88	9.0	9.0	91
Extra Tender 275 A	SW	BI	71	1474	1823	153	0.70	7.6	1.87	8.7	9.0	97
AAX 774	AC	BI	71	1474	1646	157	0.79	7.9	1.82	8.2	7.8	96
Gourmet Sweet 275 A	ST	BI	71	1474	1952	155	0.66	7.4	1.81	7.3	9.0	93
Tethys	SY	BI	71	1474	1581	124	0.65	7.6	1.67	3.6	8.4	88
AAX 425	AC	BI	72	1484	1452	126	0.72	8.0	1.78	6.7	9.0	95
ACX 946	AC	BI	72	1484	1484	119	0.67	7.7	1.68	8.8	7.8	85
ACX 950	AC	BI	72	1484	1646	113	0.57	7.1	1.65	5.4	8.9	83
Tango	CR	BI	72	1484	1420	113	0.66	7.8	1.85	7.4	8.2	89
HMX 8344 BS	HM	BI	73	1498	1871	162	0.72	8.0	1.79	8.3	7.8	92
Attribute BSS 0977	SY	BI	73	1498	1904	122	0.54	7.0	1.60	8.9	8.7	91
PS 9364169	PS	BI	73	1498	1726	144	0.69	8.1	1.76	5.1	7.7	94
HMX 8343 BS	HM	BI	74	1521	1533	144	0.78	8.0	1.68	9.0	5.2	94
PS 8201	PS	BI	74	1521	1662	149	0.75	7.9	1.76	8.9	5.0	94
Millennium	SW	W	74	1521	1323	109	0.69	8.3	1.81	7.2	7.1	90
Gourmet Sweet 171 A	ST	Y	64	1378	1484	96	0.54	6.7	1.67	5.6	9.0	90
Cronus	SY	Y	69	1450	1710	126	0.61	7.1	1.81	8.3	9.0	92
PS 8004	PS	Y	71	1474	1726	144	0.69	8.3	1.75	5.3	8.9	94
ACX 945	AC	Y	72	1484	1517	134	0.73	8.2	1.75	6.7	9.0	93
Attribute GSS 0966	SY	Y	72	1484	2243	159	0.59	7.2	1.67	8.2	9.0	94
Crisp 'n' Sweet 710 A	CR	Y	72	1484	1484	139	0.78	8.8	1.76	8.9	9.0	93
AAX 638	AC	Y	73	1498	1436	131	0.76	8.2	1.77	7.4	5.8	93
HMX 8392 S	HM	Y	73	1498	1613	128	0.66	7.3	1.72	9.0	5.6	87
7640	AC	Y	74	1521	1355	110	0.68	8.0	1.74	6.7	5.6	92
GSS 3381 VP	SY	Y	76	1559	581	43	0.61	7.8	1.64	8.6	5.3	96
Grand mean					1601	128	0.67	7.7	1.75	7.4	7.9	92
LSD .05†					199	16	0.05	0.3	0.10	–	–	5
LSD for comparisons with Fantasy					172	14	0.04	0.3	0.09			5
r^2 for regression vs DAP††								0.23				

*DAP: days after planting.

**GDD: corn growing degree days.

#Husk cover and tip fill: 1 to 9 scale; 2=poor, 5=acceptable, 8=good.

†Means differing by more than this amount are significantly different at P≤.05.

††r^2 is the proportion of variability explained by harvest date.